

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An ultrasonic puncture needle comprising:
a sheath which is inserted into a treatment tool insertion channel of an ultrasonic endoscope; and
a pipe-shaped needle tube for being inserted into tissue within the body cavity through the sheath, which includes,
a cutting tip portion formed in a sharp shape with a smaller cross-section in a tip-ward direction, the cutting tip portion being provided on a tip side of the needle tube, and
a plurality of staggered-array annular-shaped recesses having flat surfaces on bottoms and sides thereof and provided from a back surface of the cutting tip portion near a tip of the needle tube to over a predetermined range on a the surface of a the tip portion of the needle tube, which is an area excluding the cutting tip portion from the portion near the tip of the needle tube.
2. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 1, wherein the plurality of annular-shaped recesses are arrayed so as to be spread in a radial pattern from the tip of the needle tube.
3. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 1, wherein the multiple annular-shaped recesses are formed using a laser apparatus or an electric discharge machining apparatus.

4. (Currently Amended) ~~[[An]]~~ The ultrasonic puncture needle according to Claim 3, wherein the multiple annular-shaped recesses are formed using a laser apparatus or an electric discharge machining apparatus under positioning control set so that the ~~toroid~~ annular-shaped recesses have no adverse effects on a cutting-tip portion forming the needle tube due to overlap of the annular-shaped recesses and the cutting-tip portion.

5. (Currently Amended) An ultrasonic puncture needle comprising a pipe-shaped needle tube which is to be inserted into a treatment tool insertion channel of an ultrasonic endoscope so as to be inserted into tissue within the body cavity, wherein the needle tube includes:

a cutting tip portion formed in a sharp shape with a smaller cross-section in a tip-ward direction, the cutting tip portion being provided on a tip side of the needle tube, and

a plurality of annular-shaped recesses having flat surfaces on bottoms and sides thereof and provided from a back surface of the cutting tip portion near a tip of the needle tube to over a predetermined range on a the surface of a the tip portion of the needle tube, which is an area excluding the cutting tip portion thereof from the tip thereof on the back side of a cutting-tip portion.

6. (Currently Amended) ~~[[An]]~~ The ultrasonic puncture needle according to Claim 5, wherein the plurality of recesses are arrayed so as to be spread in a radial pattern from the tip of the needle tube.

7. (Currently Amended) ~~[[An]]~~ The ultrasonic puncture needle according to Claim 5, wherein the plurality of recesses are formed at positions such that overlap of the recesses and the cutting-tip portion does not occur.

8. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 6, wherein the plurality of recesses are formed at positions such that overlap of the recesses and the cutting-tip portion does not occur.

9. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 5, wherein the plurality of recesses are formed in a annular-shape using a laser apparatus or an electric discharge machining apparatus.

10. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 6, wherein the plurality of recesses are formed in a annular-shape using a laser apparatus or an electric discharge machining apparatus.

11. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 7, wherein the plurality of recesses are formed in a annular-shape using a laser apparatus or an electric discharge machining apparatus.

12. (Currently Amended) An ultrasonic puncture needle comprising:
a puncturing portion formed with a suitable length at the tip of the ultrasonic puncture needle; and

a tube portion formed in the shape of a tube at the rear end of the puncturing portion, wherein the puncturing portion is formed of a cutting-tip portion having a sharp shape with a smaller cross-section in a tip-ward direction, the cutting tip portion being provided on a tip side of the puncturing portion and a tube-shaped portion formed as an extension of the tube portion, which includes a plurality of annular-shaped recesses having flat surfaces on bottoms and sides thereof and provided from a back surface of the cutting tip portion near a tip of the

needle tube, said annular-shaped recesses being formed on the surface of the tip portion of the needle tube, which is an area excluding the cutting tip portion thereof.

13. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 12, wherein the plurality of annular-shaped recesses are formed and arrayed so as to be spread over a predetermined range on the surface of the tip portion in a radial pattern from the tip of the tube portion on the back side of the cutting-tip portion.

14. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 13, wherein the plurality of annular-shaped recesses are formed using a laser apparatus or an electric discharge machining apparatus.

15. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 14, wherein the plurality of annular-shaped recesses are formed at positions such that overlap of the recesses and the cutting-tip portion forming the needle tube does not occur, using a laser apparatus or an electric discharge machining apparatus.

16. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 12, wherein the ultrasonic-reflection means comprises a plurality of recessed portions formed and arrayed so as to be spread in a predetermined range on the surface of the tip portion in a radial pattern from the tip of the tube portion on the back side of the cutting-tip portion.

17. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 16, wherein the plurality of recessed portions are formed at positions such that overlap of the recessed portions and the cutting-tip portion does not occur.

18. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 16, wherein the plurality of recessed portions are formed in a annular-shape using a laser apparatus or an electric discharge machining apparatus.

19. (Currently Amended) [[An]] The ultrasonic puncture needle according to Claim 17, wherein the plurality of recessed portions are formed in a annular-shape using a laser apparatus or an electric discharge machining apparatus.